Enhanced Testbed Monitoring and FCH Service

- **Motivation:** Provide better visibility into the availability of the NDN testbed. The current status page only shows routing reachability; the redesigned page would detect data plane and prefix registration issues. Make it easier for an end host to find and connect to a working testbed router.
- **Tasks:**
  - Develop a service that periodically (a) connects to a testbed router over UDP, TCP, and WSS, (b) sends ndnping probes to every known destination, (c) registers a prefix and checks its propagation by pinging from another router. Collected results should be saved into a database.
  - Develop a web application that shows the results from the database.
  - Develop an NDN-FCH compatible server that responds with routers with minimum downtime in the past T hours. This server can directly connect to the database.
  - Improve ndn-autoconfig client: try multiple routers from NDN-FCH, try the Wi-Fi access point, etc.
- **Requirements:** Python and database basics; C++ for the last task.
- **Outcome:** implement as much as possible of the described tasks; demonstrate the capabilities of the web app and the new NDN-FCH service.